

CORRES. CONTROL  
OUTGOING LTR NO.

# EG&G ROCKY FLATS

000048251

DOE ORDER# 4700.1

94 RF 12144

EG&G ROCKY FLATS, INC.

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CORRES. CONTROL

ADMN RECORD/080

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PATS/T130G

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IN REPLY TO RFP CC NO:

ACTION ITEM STATUS

☐ PARTIAL/OPEN

☐ CLOSED

LTR APPROVALS:

ORIG & TYPIST INITIALS

December 14, 1994

94-RF-12144

Jessie M. Roberson  
Acting Assistant Manager for  
Environmental Restoration Division  
DOE/RFO

INDUSTRIAL AREA REMEDIATION PLAN (0432) – SGS-634-94

Action: None Required

EG&G Rocky Flats, Inc. has conducted a review, both from a regulatory and technical perspective, of the proposed scenarios in the above referenced letter. Specific information, provided in Attachment 1, was developed from a meeting held December 1, 1994 with representation from the Department of Energy/Rocky Flats Field Office (DOE/RFFO), EG&G Rocky Flats Environmental Protection and EG&G Rocky Flats Environmental Restoration departments (Attachment 2). Highlights of three scenarios discussed at the meeting are presented below:

**Scenario: An Operable Unit (OU) made up entirely of ground water;**

**Conclusion:** The concept of a ground water OU does have technical merit based on current knowledge regarding the nature and extent of ground water contamination at EG&G Rocky Flats as discussed in Attachment 1. Both past and ongoing sitewide ground water evaluations could easily support remedial investigation for a proposed ground water OU. However, the boundaries of this proposed OU should be defined based on the current ground water flow models and not existing OU boundaries or other political boundaries, as defined in the Interagency Agreement (IAG).

Currently, the only ground water IHSS or OU that EG&G would recommend creating is for the Industrial Area Operable Units (IA OUs) 8, 9, 10, 12, 13, and 14. Inclusion of OUs, e.g. OUs 1, 2, and 4, where contaminant sources and remedial actions are completed or ongoing should not be included in the IA OU consolidation. The IA OUs should consolidate ground water into an IHSS or OU with the emphasis for eventual treatment of ground water to be performed with existing treatment systems at Rocky Flats.

The first step towards consolidation has been completed with the issuance of the Interim Measures/Interim Remedial Action Decision Document for the Rocky Flats Industrial Area in November 1994. The Decision Document provides the initial framework to address the consolidation of monitoring ground water and other environmental media during investigation and remediation of the IA OUs and also provides monitoring for future protection from contamination during D&D activities in the IA.

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**Scenario:** The transfer of the A, B, and C series ponds from OUs 5 and 6 into a stand-alone OU or a transfer into the Industrial Area for future Decontamination and Decommissioning;

**Conclusion:** There is no basis removing the A, B, and C series ponds from OUs 5 and 6 and creating a new "pond-based OU." The media of concern, in the ponds, in OUs 5 and 6 are the sediments. Ponds A3, A4, B5, C1, C2, and the pond at Walnut and Indiana are clear-cut candidates for no further action as determined from routine surface water and sediment sampling. These ponds should remain in their respective OUs. Ponds A1, A2, B1 through B4, contain constituents that exceed the Proposed Programmatic Remediation Goals for sediments and may require development of an Interim Measure/Interim Remediation Action per the IAG or other appropriate remedial action. This may be achieved by grouping these ponds into one existing operating unit or including them into the Industrial Area OUs for a final action.

If there are any questions or require additional information regarding this matter, please contact B. D. Peterman at extension 8659 or digital pager 5472; or E. C. Mast at extension 8589 or digital pager 4672, of my staff.

  
S. G. Stiger, Director  
Environmental Restoration Program Division  
EG&G Rocky Flats, Inc.

BDP:mmm

Attachments:  
As Stated (2)

Orig. and 1 cc – J. M. Roberson

cc:  
M. N. Silverman - DOE/RFFO

## DISCUSSION NOTES FROM DECEMBER 1, 1994 MEETING

1. The formation of a sitewide ground water OU makes sense for a number of reasons. First, it is generally known that the current OU configurations were designed based on the location of known sources, with little regard for the extent of contamination away from those sources. Based on evidence in the 1993 and 1994 Well Evaluation Reports and site wide ground water modelling, contaminant plumes tend to cross OU boundaries, and potential ground water flow pathways clearly cross OU boundaries.

There are also other regulatory drivers that are mandating the issue of sitewide monitoring and remediation. The ecological risk assessment, Sitewide Environmental Impact Statement and soon to be promulgated 10CFR 834 regulations, all promote a sitewide perspective to regulatory compliance including the Clean Water Act reauthorization.

The sitewide ground water OU concept would not drastically change current operations or funding. Much of the Sitewide Program at RFETS is geared towards site ground water issues. There is already a sitewide ground water monitoring network that is being evaluated on a regular basis. The Well Evaluation, Ground water Geochemistry, Hydrogeologic and Geologic Characterization Reports scheduled for completion in January, 1995 and the Sitewide Ground water Flow Model all support sitewide ground water remedial investigation goals. There is also a sitewide water balance and intrinsic remediation project scheduled for FY95 which will assist this effort. In retrospect, it may not be so much a change in scope but a change in packaging and priority that could turn the sitewide ground water program into the sitewide ground water OU. The viability of this concept would be prefaced on the assumption of new schedules of completion for ground water remediation with the agencies.

One of the main observations made at the meeting was that OU managers were deciding whether or not they felt their OU should be part of the sitewide effort. These decisions may have been based on technical and/or schedule considerations. Decisions with respect to the boundaries to the ground water OU should be based on the sitewide flow model and the flow paths that the model shows to be important for contaminant migration. As such, entire OUs and/or pieces of OUs as currently defined would be involved. Expansion of the ground water remedial investigation beyond current boundaries would also help evaluate the role of natural attenuation of contaminants in the remediation decisions and perhaps lessen the need for expensive cleanup activities.

In summary, the concept of a ground water OU has a great deal of technical merit based on what is known about the nature and extent of contamination in ground water. Both past and ongoing sitewide ground water evaluations easily support remedial investigation requirements for the ground water OU and staff are on board to continue this effort. The boundaries of the proposed ground water OU should be defined on the basis of the ground water flow model and not current OU boundaries.

2. Operable Units (OUs) 1 and 2 should not be considered for inclusion in any sitewide OU for ground water. The ground water in these OUs is contaminated from sources within the OU and is not being effected by ground water from other OUs. Ground water remediation is currently being evaluated by the use of the RCRA [Resource Conservation & Recovery Act] Facility Investigation/Remedial Investigation (RFI/RI) data and ground water models that have been calibrated or are in the process of being calibrated for each of the OUs.

The draft corrective measures study/feasibility study (CMS/FS) for OU 1 has been completed and comment resolution is underway with the agencies. OU 1 contamination is primarily in ground water and can be closed out as soon as comment resolution is finished. Realignment of OU 1 into a ground water OU would stall the process for completion of the CMS/FS.

3. OU 3, the off site OU, should not be considered for inclusion in any sitewide OU for ground water. Ground water has never been considered a contamination pathway in this OU. Ground water pathways are either not present, or the contaminant pathways from upstream sources have been or will be rendered incomplete by site Interim Measure/Interim Remediation Actions (IM/IRAs). The ground water can be evaluated independently of OU 3.
4. OU 7, Original Landfill, Presumptive Remedy, using the Environmental Protection Agency (EPA) guidance for Landfill Closure. Post closure monitoring will be maintained for a minimum of 30 years after completion of the remedial action. The OU should maintain its current course of action, the current monitoring well data, and data developed from the leachate collection system can be used to develop a sitewide model of ground water.
5. OU 11, West Spray Field, viable candidate for no further action. The Colorado Department of Public Health and the Environment (CDPHE) has concurred with the Department of Energy/Rocky Flats Field Office approach to justify no further action (including ground water) for OU 11 via the RFI/RI Report and using the report for the basis for the proposed plan. Since this is a RCRA unit, it will be necessary to demonstrate that this unit meets clean closure performance criteria, passing the CDPHE conservative risk screen is an acceptable demonstration that this has occurred. OU 11 is up gradient from the Industrial Area OUs and OUs 5 and 6.
6. OUs 5 and 6 can be considered receptor OUs, potentially receiving ground water contributions from the Industrial Area OUs, OU 1, OU 2, OU 4, OU 7, and OU 11. The creation of a ground water OU would potentially allow for closure of other sources in the Industrial Area OUs as well as OUs 4, 5, and 6 with a different final closure as a ground water (receptor) OU. The closure of the ground water OU can occur at a time when all other sources have been remediated, or pathways of transport to receptors have been mitigated by appropriate IM/IRAs or final actions.
7. A, B, and C series ponds. There are currently no contaminants of concern exceeding surface water Human Health Risk Assessment Proposed Programmatic Remediation Goals (PPRG) in the ponds. The media of concern in the A, B (OU 6), and C (OU 5) series ponds are the sediments. Ponds A1, A2, B1 through B4 have sediments that contain constituents exceeding PPRG for sediments. Ponds A3, A4, B5, C1, C2, and the pond at Walnut and Indiana are clear candidates for no further action. Those ponds that are candidates for no further action should remain in their respective OUs; those ponds that may require an IM/IRA or a final action, other than no action, can be grouped into one of the existing OUs or included with the Industrial Area OUs for a final action linked to Decontamination and Decommissioning. Ponds A1, A2, B1 through B4, could be removed from OU 6 during the FS after EPA/CDPHE acceptance of Technical Memorandum No. 1, Remedial Action Alternatives.
8. Consolidation of ground water into an OU or IHSS for the Industrial Area OUs (8, 9, 10, 12, 13, and 14) does make sense based on the current consolidation of investigation of these OUs. For over a year the IA OUs have been managed collectively as one project

during the investigation stages. Since ground water flow paths and potential contamination do not respect individual political boundaries, the out year planning assumption for the IA OUs has been to include a holistic approach for dealing with ground water contamination and remediation. Under this assumption ground water investigation targets sources of contamination first then remediation, either locally or regionally across the IA, would feed into existing treatment systems, e.g. OU 1 or OU 4. The benefit of this approach would be to minimize creating separate treatment systems for the IA OUs. Another benefit would be that ground water remedial actions could be focused or expanded within the ground water OU or IHSS based on technical considerations rather than continual administration of individual IHSS boundaries.

The formal creation of an IA OU ground water IHSS or OU will benefit the IA OUs, however consolidation of existing OUs that have definable contaminant sources or plumes based upon extensive investigation and remedial actions completed to date should not be included in the consolidation. Primarily the IA OUs should be considered a secondary area where consolidation will occur only for the areas within the IA OUs. The result would be to leave existing OUs out of a ground water consolidation for reasons cited in number 2 of this attachment and remedial efforts that result from the IA OUs utilize existing treatment units.

ATTENDANCE RECORD - SURFACE WATER/GROUNDWATER

DATE	NAME (PLEASE PRINT)	ORG/BLDG. NO.	PHONE/FAX
12/1/94	Carol Bicher	ER005 - Bldg 80	9100/8663
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12/1/94	Mark Buddy	<del>ER-005.67</del> IA 10/10A	78519
12/1/94	Ed Mast		8589
12/1/94	Annette Primrose	Group 1 / 080	8618
12/1/94	Steve Singer	Hydro Geo Sys	8635
12/1/94	T.R. DeMass	DHD / 0080	8760
12/1/94	Jim Berg	DHD / CPB B-80	8771
"	Candis D. Buzin	SWD / 080	6914/8663
"	GEORGENE PORTER	SWD / T893A	5661 / 3534
12/1/94	Steve Pettis	SWD / T893A	2001 / 3534
12/1/94	Gail Hill	DOE / ESD / 116	3434 / 8053
12/1/94	Brent Evans	BAI / SSD / 115A	6583 / 318P
12-1-94	Marylee Hagg	ICF-K / ECG / 080	9516 / 8663
12-1-94	Rutha Randall	EG-02 1080	9624 / 8663
12-1-94	Pamela Lee	EG-02 / 9000 T893A	4644 / 3534
12/1/94	SAM MARSHALL	EG-02 SW T893A	2325 / 8482
12/1/94	Robert J. Stevens	EG-02 Ecolgy T893A	3631 / 3534
12/1/94	Dennis L. Schubbe	EG-02 Ground / 090	x8704 / 25482
"	BOB FIEHWEG	EG-02 SURFACE WATER T893A	x7403 / 3534
"	Lisa B. Herrington	IAOU Comp / LANL	x4676
12/1/94	Greg Liras	EG-02 / 1162	x5790
12/1/94	USBUSTON	002 / 1080	x8522
12/1/94	Meg Arburn	IA OU Closures	x8504
12/1/94	Bruce Peterman	IA OU Closures	x8659